

REMARKS

Claims 1-20, 22, and 29-32 are pending in the application. Applicant respectfully requests reconsideration of the pending claims in view of the amendments and the foregoing remarks.

1. Provisional Double-Patenting Rejection

Applicant acknowledges the Examiner's allegation that claims 1-20, 22, and 29-32 are provisionally rejected on the grounds of non-statutory obviousness-type double patenting in view of claims 12-24 of co-pending Application No. 10/749,424. Applicant awaits to respond until this alleged provisional rejection is no longer designated to be provisional.

2. Claim Rejections in View of Prior Art

Claims 1-20, 22, and 29 stand rejected under 35 U.S.C. 102(b) in view of U.S. Patent No. 6,490,474 to Willis et al. (herein "the Willis et al. reference"). Claims 30-32 stand rejected under 35 U.S.C. 103(a) as being obvious over Willis et al. in view of U.S. Patent No. 6,332,089 to Acker et al. (herein "the Acker et al. reference").

Claim 1 recites a system for displaying a three-dimensional image of an organ or structure inside the body, the system comprising, amongst other things, a three-dimensional display coupled to the processor and configured to simultaneously display the three-dimensional image and a representation of the probe.

Willis et al. reference does not disclose a three-dimensional display coupled to the processor and configured to "simultaneously display the three-dimensional image" of an organ or structure inside the body and a representation of the probe. Rather, Willis et al. reference discloses use of ultrasound reference catheters to measure "time of flight" of acoustic signals and thereby to calculate distance, and in combination with triangulation to establish a three-dimensional coordinate system using the reference transducer on the reference catheter 10. Col. 5, lines 1-48. Then additional catheter transducers track the location of an additional catheter 12, 14, 16 relative to the coordinate system. Col. 5, lines 48-61. Willis et al. merely discloses that the location of the ablation catheter 12, the reference catheters, and other additional catheters relative to the coordinate system can

then be displayed. Col. 5, line 60-col. 6, line 59 and Figs. 31 and 32. Electrophysiology signals may also be displayed as an isochronal or isopotential map on a three-dimensional display. Col. 18, lines 30-40; col. 20, lines 28-54. However, there is no disclosure of a three-dimensional display coupled to the processor and configured to “simultaneously display the three-dimensional image of an organ or structure inside the body” and a representation of the probe, as recited in claim 1. For at least the above-described reason, the Willis et al. reference does not disclose each and every limitation of the claimed invention. Accordingly, reconsideration and withdrawal of the rejection of claim 1 is respectfully requested.

Claims 2-13 depend either directly or indirectly from claim 1, and are believed allowed for similar reasons that claim 1 is believed allowable. Claims 2-13 may also recite patentable subject matter in addition to that recited for claim 1. Accordingly, reconsideration and allowance of claims 2-13 is respectfully requested.

Claim 14 recites a system for displaying a three-dimensional image of a heart, the system comprising a processor configured to be communicatively coupled to a probe, memory coupled to the processor and configured to store image data pertaining to the heart; and a three-dimensional display coupled to the processor and configured to simultaneously display the three-dimensional image of the heart and a representation of the probe.

For reasons similar to those described above for claim 1, the Willis et al. reference does not disclose “a three-dimensional display coupled to the processor and configured to simultaneously display the three-dimensional image of the heart and a representation of the probe.” Accordingly, reconsideration and withdrawal of the rejection of claim 14 is respectfully requested.

Claims 15-20 depend either directly or indirectly from claim 14, and are believed allowed for similar reasons that claim 14 is believed allowable. Claims 15-20 may also recite patentable subject matter in addition to that recited for claim 14. Accordingly, reconsideration and allowance of claims 15-20 is respectfully requested.

Claim 21 is cancelled, and claim 22 is amended to include all of the limitations of claim 21. No new matter is added. Claim 22 as amended recites a system for displaying

a three-dimensional image of an organ or structure inside the body, the system comprising a processor configured to be communicatively coupled to a probe, the probe being configured to be located in or adjacent to the organ or structure inside the body and to collect data representative of the electrical properties of the organ or structure inside the body; memory coupled to the processor and configured to store image data pertaining to the organ or structure inside the body; and a three-dimensional display coupled to the processor and configured to display the three-dimensional image and a map of the electrical properties of the organ or structure inside the body, wherein the display is further configured to simultaneously display a representation of the probe, wherein the representation of the probe is registered with the three dimensional image of the organ or structure inside the body.

For reasons similar to those described above with respect to claim 1, the Willis et al. reference does not disclose a system for displaying a three-dimensional image of an organ or structure inside the body that includes, among other things, “a three-dimensional display coupled to the processor and configured to display the three-dimensional image and a map of the electrical properties of the organ or structure inside the body, wherein the display is further configured to ‘simultaneously’ display a representation of the probe,” wherein the representation of the probe is registered with the three dimensional image of the organ or structure inside the body, as recited in claim 22 (emphasis added). Accordingly, reconsideration and withdrawal of the rejection of claim 22 is respectfully requested.

Claim 29 recites a system for displaying a three-dimensional image of an organ or structure inside the body, the system comprising a memory configured to store a first set of image data pertaining to the organ or structure inside the body; a processor coupled to the memory and configured to be communicatively coupled to an imaging device and a probe, the imaging device being configured to generate a second set of image data pertaining to the organ or structure inside the body, and the probe being configured to be located in or adjacent to the organ or structure inside the body, the processor further configured to generate the three-dimensional image using the first set of image data and the second set of image data; and a three-dimensional display coupled to the processor

and configured to simultaneously display the three-dimensional image and a representation of the probe.

For reasons similar to those described above for claim 29, the Willis et al. reference does not disclose a system that includes, among other things, a memory configured to store a first set of image data pertaining to the organ or structure inside the body; a processor coupled to the memory and configured to be communicatively coupled to an imaging device and a probe, the imaging device being configured to generate a second set of image data pertaining to the organ or structure inside the body, the processor further configured to generate the three-dimensional image using the first set of image data and the second set of image data; and a three-dimensional display coupled to the processor and “configured to simultaneously display the three-dimensional image and a representation of the probe” (emphasis added). For at least this reason, the cited reference does not teach each and every limitation of the claimed invention.

Accordingly, reconsideration and allowance of claim 29 is respectfully requested.

Claims 30-32 depend either directly or indirectly from claim 29, and are believed allowed for similar reasons that claim 29 is believed allowable. Claims 30-32 may also recite patentable subject matter in addition to that recited for claim 29. For example, the Willis et al. reference and the Acker et al. reference do not disclose a system configured to provide a warning when the first set of image data differs from the second set of image data according to a predetermined criterion, as recited in claim 31. Rather, the Acker et al. reference merely discloses comparison of disposition of a site or reference probe recorded from x-ray or other image data relative to disposition of the site or reference probe relative as acquired by “field transducers.” Col. 13, line 51 - Col. 14, line 6 (emphasis added). Accordingly, reconsideration and allowance of claims 30-32 is respectfully requested.

CONCLUSION

No fees are believed due with this communication. Yet, the Commissioner is hereby authorized to charge any additional fees, or credit any overpayment, which may be required regarding this application to Deposit Account No. 070845. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby

The Examiner is invited to contact the undersigned by telephone at 262-548-4654 if it is felt that a telephone interview would advance the prosecution of the present application.

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GE Healthcare
Customer No. 61604

Respectfully submitted,

By: 

William T. Kryger
Registration No. 53,163